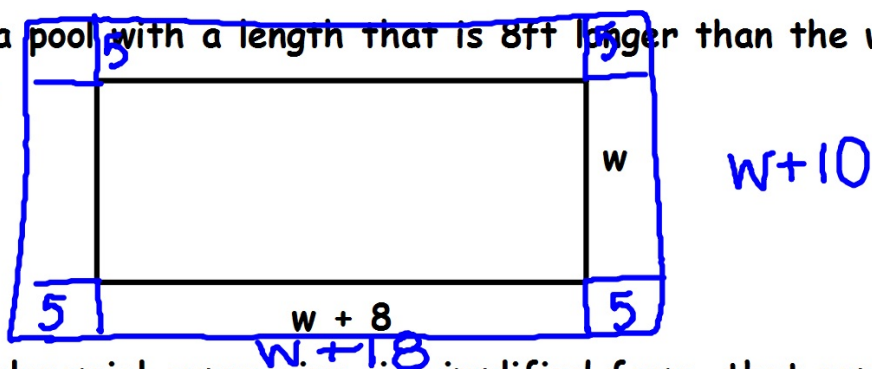


Bellwork: 10/15/12

Kevin builds a pool with a length that is 8ft longer than the width as shown below:



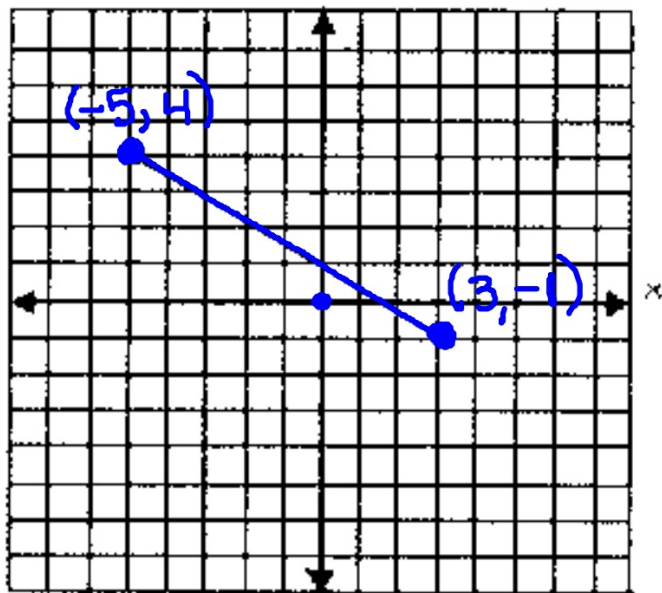
- a) Write a polynomial expression, in simplified form, that represents the area of the pool.

$$A = w(w + 8) = w^2 + 8w$$

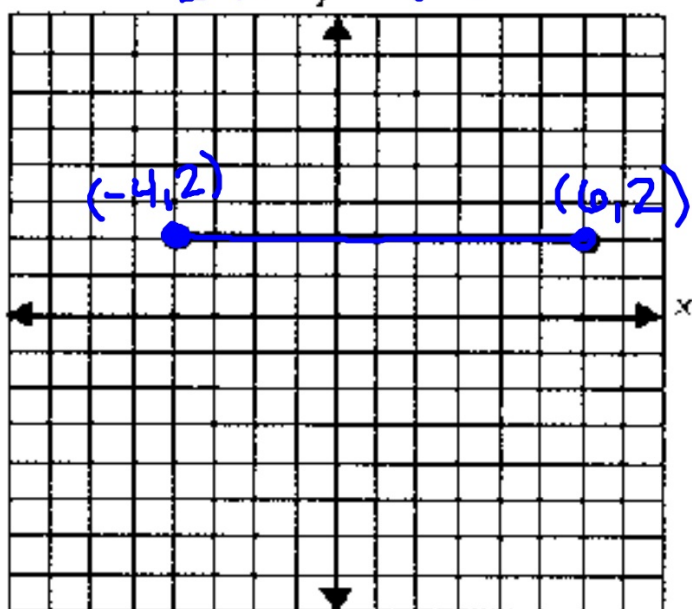
- b) Kevin adds a five foot wide deck around all sides of the pool. Write a polynomial expression, in simplified form, that represents the TOTAL AREA of the deck and pool.

$$(w + 10)(w + 18) \rightarrow w^2 + 28w + 180$$
$$w^2 + 18w + 10w + 180$$

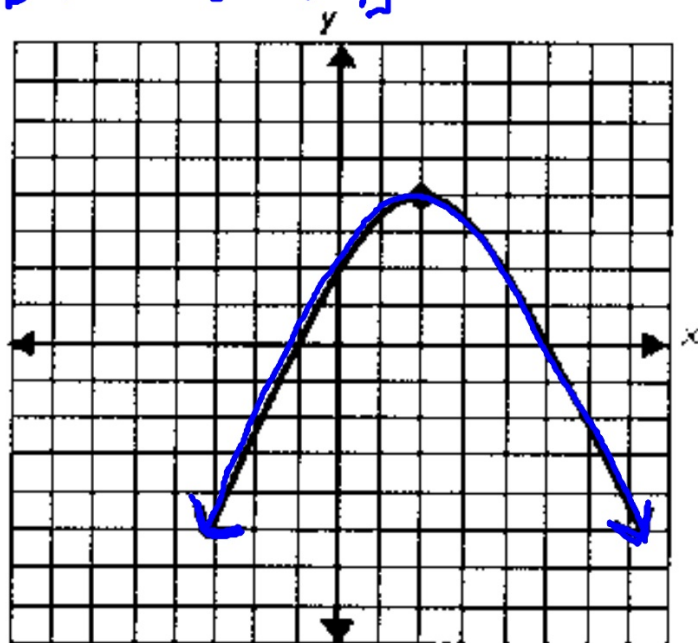
1) Function? ^{yes}
 $x \mapsto R$ Domain: $[-5, 3]$
 $y \mapsto T$ Range: $[-1, 4]$



2) Function? ^{yes}
 $x \mapsto \mathbb{R}$ Domain: $[-4, 6]$
 $y \mapsto \mathbb{T}$ Range: $[2]$ or $\{2\}$



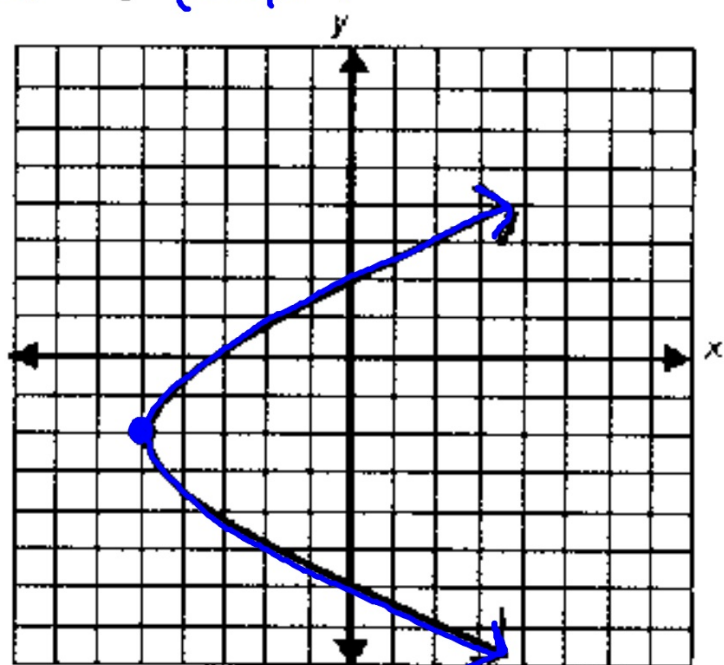
3) Function? *yes*
 $x \in \mathbb{R}$ Domain: $(-\infty, \infty)$
 $y \in \mathbb{R}$ Range: $(-\infty, 4]$



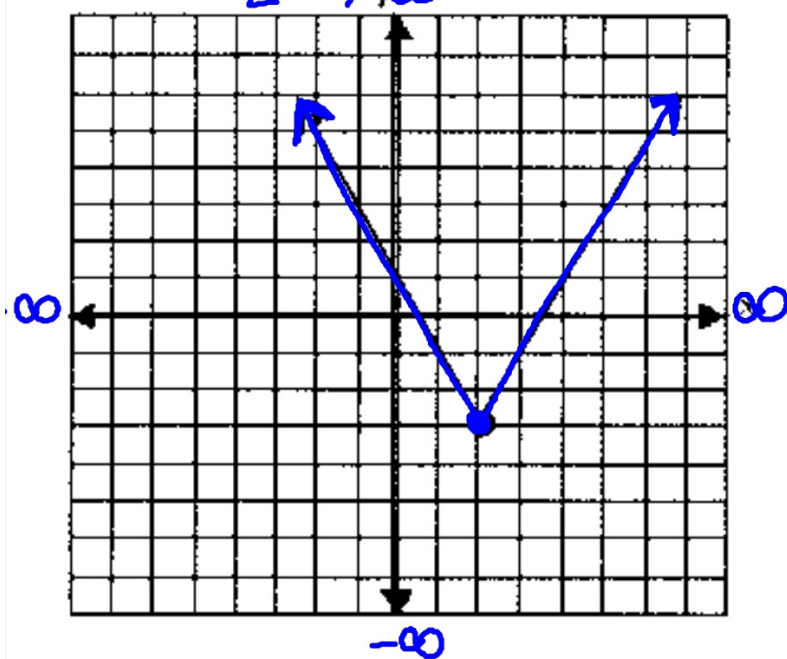
4) Function? $\cap 0$

$x \in \mathbb{R}$ Domain: $[-5, \infty)$

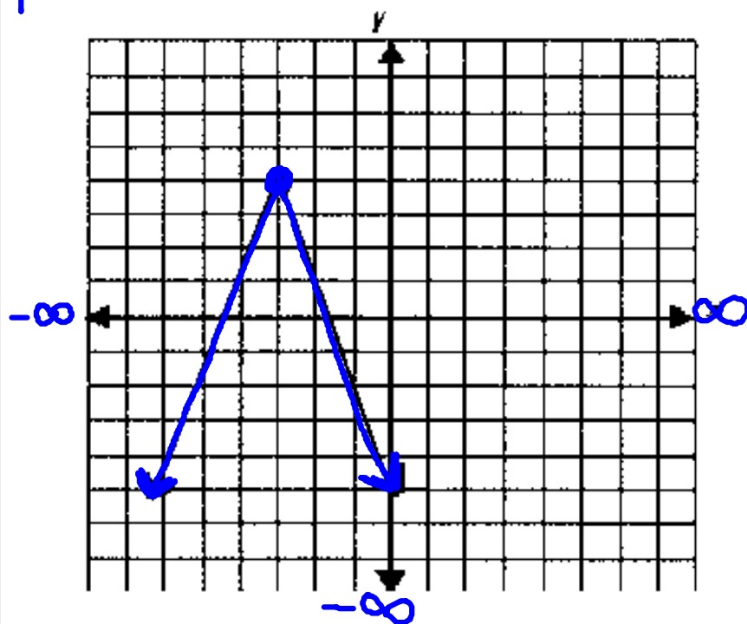
$y \in \mathbb{R}$ Range: $(-\infty, \infty)$



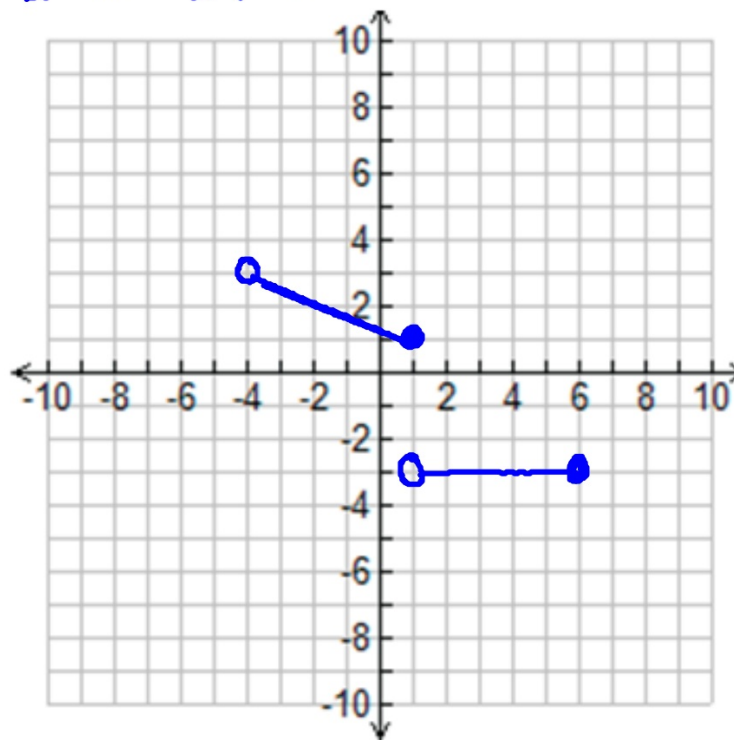
5) Function? *yes*
 $L \rightarrow R$ Domain: $(-\infty, \infty)$
 $B \rightarrow T$ Range: $[-3, \infty)$



6) Function? *YES*
 $x \mapsto \mathbb{R}$ Domain: $(-\infty, \infty)$
 $y \mapsto \mathbb{R}$ Range: $(-\infty, 4]$



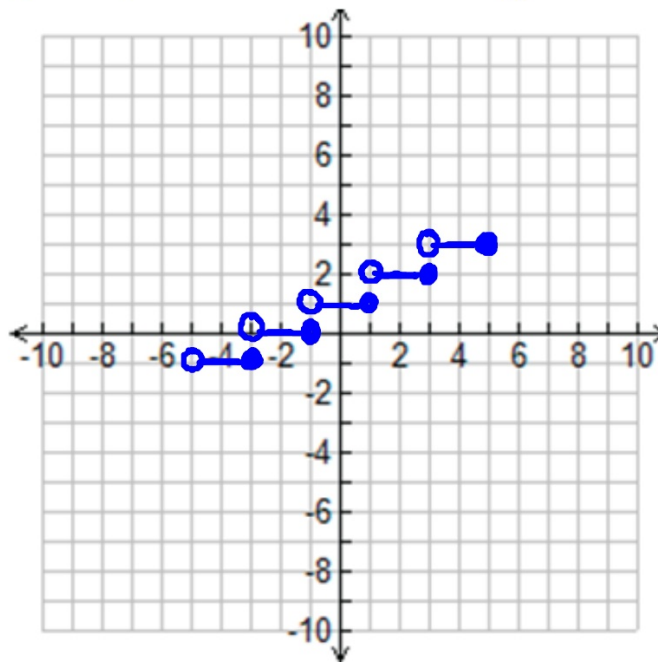
⑦ Function? yes
 $x \in \mathbb{R} \rightarrow \mathbb{R}$ Domain: $(-4, 1] \cup (1, 6]$ or $(-4, 6]$
 $y \in \mathbb{R} \rightarrow \mathbb{R}$ Range: $[-3] \cup [1, 3)$



⑧ Function? yes

$x \mapsto \mathbb{R}$ Domain: $(-5, -3] \cup (-3, -1] \cup (-1, 1] \cup (1, 3] \cup (3, 5]$ or $(-5, 5]$

$y \mapsto \mathbb{R}$ Range: $[-1] \cup [0] \cup [1] \cup [2] \cup [3]$ or $\{-1, 0, 1, 2, 3\}$



AW: Domain & Range Practice

1 + 2 \rightarrow just points ; not connected

NO interval notation
 $\{ \}$

3 - 12 \rightarrow connected

YES interval notation